PHOSPHORUS LEVELS DECLINING AND WATER QUALITY IMPROVING IN TUALATIN RIVER BASIN CleanWater Services Beaverton Cr (River Mile 1.2) Our commitment is clear. Rock Cr (River Mile 1.2) Dairy Cr (River Mile 2.1) **TUALATIN RIVER** Fanno Cr (River Mile 1.2) Better stormwater management and better wastewater treatment have **TRIBUTARIES** resulted in decreasing phosphorus con-86-88 89-91 92-94 95-97 98-00 1988 TMDI Gales Cr (River Mile 1.5) centrations and improved water quality 86-88 89-91 92-94 95-97 98-00 Stream monitoring shows a slow, but 1988 TMDL 2001 TMDL 86-88 | 89-91 | 92-94 | 95-97 | 98-00 in the main stem Tualatin River. In the perceptible, decline in phosphorus consensitive lower river, once-common centrations in tributaries throughout the 86-88 89-91 92-94 95-97 98-00 large algal blooms are now rare, chlorobasin. Many tributaries now meet the phyll levels are decreasing, and exceed-2001 TMDL (Total Maximum Daily 86-88 89-91 92-94 95-97 98-00 ances of the pH standard almost never Load) for phosphorus. The TMDL is occur. determined by the Oregon Department of Environmental Quality and is their best estimate of the naturally occurring phosphorus concentration. Stafford Rd (River Mile 5.4) Total Phosphorus (mg/L Hagg Lake Hall Cr Carpenter Cr Rock Creek WWTP State of Oregon Guidance level Golf Course Rd (River Mile 51.5) Total Phosphorus (mg/L) 2001 TMD Butternut Cr 86-88 89-91 92-94 95-97 98-00 Rood Rd (River Mile 38.4) 86-88 | 89-91 | 92-94 | 95-97 | 98-00 with pH Exceeding 8.5 2001 TMDL 86-88 | 89-91 | 92-94 | 95-97 | 98-00 Scoggins Cr Schematic Map Elsner Rd (River Mile 16.2) 1988 TMDL Not to Scale 86-88 | 89-91 | 92-94 | 95-97 | 98-00 Ash Cr TUALATIN 1988 TMDI Dilley (River Mile 58.8) Red Rock Cr 86-88 89-91 92-94 95-97 98-00 Lake Oswego STORMWATER MANAGEMENT Clean Water Services began its Storm-86-88 89-91 92-94 95-97 98-00 **Durham WWTP** water Management Program in 1990. Best management practices include water quality facilities, street sweeping, and public education. Since 1993, the area treated by water quality facilities has **WASTEWATER TREATMENT** increased by almost 10-fold. **POPULATION** State of the art phosphorus removal was implemented at the Rock Creek and **Total Acres with Water Quality Facilities** The population of Washington County Durham Wastewater Treatment Plants in 1994 and resulted in an immediate has grown by over 40% in the past 10 90% reduction in effluent phosphorus concentrations. years and is approaching a half million. WWTP Total Phosphorus (mg/L) 2000 Average 200.000 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 300.000 400.000